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THE RESOURCES

OF

THE OTTAWA DISTRICT.

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THE RESOURCES OF THE OTTAWA DISTRICT.

There is perhaps no section of the Dominion with such numerous and varied resources to aid in its development, as the whole valley of the Ottawa, and yet, strange to say, it has been almost entirely passed by or its existence ignored, as a district which ought to attract immigration and settlement. One cause for this may be attributed to the fact that with most of the emigrants leaving the shores of the Old Country, the West is the goal of their ambition, and Toronto and its adjacent country, the site of their proposed future home. They know they will land at Quebec; they have heard they must pass through Montreal; but of the middle country through which they must pass to reach Toronto,—Central Canada, and especially the Ottawa District which lies off the main line of travel,—they are utterly ignorant; and as a natural consequence, the back country of that section is still less likely to be known to them. Another cause which may be said to have contributed to retard settlement along the Ottawa, is to be found in the reluctance the holders of large Timber Limits, or berths, have had for many years in allowing settlers to intrude on their land, their

object being naturally to keep down wages as much as possible, and at the same time retain the timber in their own hands. That settlement follows in the train of lumbering operations, will be shown under the heading of Agricultural resources, and now that the lumbering resources of the Ottawa Valley, have assumed such gigantic proportions within the last few years, its other resources have attracted attention, and it is now regarded as one of the finest fields for enterprising and industrious settlers, manufacturers, and miners.

The removal of the seat of Government permanently to Ottawa itself a few years ago, and the continually increasing facilities of communication by railroads with all parts of the country, has been a material means of opening up what was recently all but the virgin forest; and the numerous lumber mills and manufactories that the last few years have witnessed, springing into existence and flourishing in Ottawa and the various towns along the river, attest more than pen can describe, the unlimited amount and value of the resources of the whole Ottawa Valley.

These may be divided under the different headings of Agricultural resources, Mineral resources, Lumber resources, General resources; each of these will be described and treated under its own heading. Before doing so however a slight sketch of this section of Canada will be necessary.

LOCALITY AND DESCRIPTION.

The River Ottawa, which falls into the St. Lawrence, at the western extremity of the Island of

Montreal divides the Provinces of Quebec and Ontario, its northern shore lying in the former and its southern in the latter. Its length is about 600 miles. On its course the Gatineau which is about 300 miles in length, separates the valley towards its centre, in a line nearly perpendicular running from north to south. It is estimated that over 30,000 square miles of territory are drained by the Ottawa and its tributaries.

The district of the Ottawa Valley may be said to commence about Grenville and Hawkesbury on the east and to extend to DesJoachims, in the West, the head of river navigation at present, comprising on the North Shore the Counties of Ottawa and Pontiac, the two largest counties of Canada, abounding in lumber and mineral wealth, and the rich and fertile counties, subdivided into townships of about 10 miles square, of Prescott, Russell, Grenville, Carleton, Lanark and Renfrew, with a total population, according to the census of last year, of 234,129 inhabitants. It is intersected throughout, on both sides of the Ottawa River, with numerous large tributary streams, many of them surpassing the largest rivers of the Old Country. Of those flowing from the north, the principal are the Nation, the duLievre, the Gatineau, the Coulonge, and the duMoine. On the south side are the Madawaska, the Bonne-Chère and the Petewawa. The southern side of the Ottawa is splendidly adapted for agricultural purposes, being less mountainous than the north shore; but the valleys along the rivers, traversing the latter, and the tract lying between the Lauren-

tian Hills and the Ottawa with which they run parallel, at a distance of some thirty or forty miles, also afford good land for farming. Numerous thriving towns and villages, are located along the Ottawa and in the country adjacent; indeed, travel where you may in those portions where the forest has been broken by settlement, you will find in every ten miles at least, a village with stores, post office, blacksmith's shop, churches, school house, &c. The rapidly increasing City of Ottawa itself, with a population of 21,545, the capital of the Dominion, is a centre from which supplies of all kinds can be procured, and offers a ready market for all the produce of the Upper and Lower Ottawa, as the country east and west of it is commonly called. Connection between the head of navigation on the Ottawa River and the waters of Lake Huron, is contemplated by way of French River and Lake Nipissing; a railway from Quebec along the North Shore to Lake Huron is projected, and on the South side the Canada Central now open from Ottawa to Carleton Place, is being pushed forward; the Montreal and Ottawa Junction will be commenced at an early date, and a line from Pembroke to Kingston is in course of construction. Communication with the St. Lawrence, and the Grand Trunk Railway is established by means of the Brockville and Ottawa, and St. Lawrence and Ottawa Railways and Rideau Canal, thus giving easy access to all parts of the Dominion and the United States. Steamers ply daily along the Lower Ottawa to and from Montreal; and the Upper Ottawa has a number of fine vessels making daily trips up and down.

Thus every facility is afforded to the settlers for transport and traffic.

AGRICULTURAL RESOURCES.

The quality of the soil may be called on the whole, first rate ; in some parts a rich deep loam, in others a rich vegetable mould, with clay subsoil mixed with sand, and capable of producing the finest yield* of wheat, beans, oats, or almost any crop. The average yield of Fall wheat is 30 bushels to the acre, and of Spring Wheat, 23 bushels. But if half the care were bestowed upon the preparation of land for wheat which is devoted to that operation in Great Britain, 50 instead of 30 bushels would be the average yield. Subsoil draining is unknown here ; a proper rotation of crops scarcely ever adopted, and yet the fertile soil produces most abundant crops. The complaint with some of the farmers is that their land is too rich—no necessity for manure. A farmer at Fitzroy harbor, originally from the neighborhood of Belfast, states that he has taken in succession, fourteen crops of wheat and oats, without any manure, and the last crop was the best. He will sow the same field this year, in Spring wheat, which will be the fifteenth crop of grain.

The following extract from a letter in the Dublin Express, 29th November, 1871, dated Fitzroy Harbor, and signed A. Gordon, a scientific farmer well known in Belfast, speaks for itself. “ * * In this section “manure is regarded more as a nuisance than any- “thing else. I thought of how the Down and “Antrim farmers economise their manure ; there

"are many from these counties settled here. The
 "land is well adapted for the growth of flax, and
 "would produce the finest quality; any quantity
 "could be grown here if there were a market for it.
 "The North of Ireland will soon be flaxed out, and
 "I think if the millowners at home directed their at-
 "tention to Canada, they could get all they would
 "require; besides the adaptability of the soil, there is
 "the advantage of quick transit; from Montreal to
 "Liverpool the trip is made on an average in ten
 "days. * * Farm hands get more than double what
 "they get at home, and good board, with meat three
 "times a day."

All through the valley of the Ottawa, patches of
 Pine and Hardwood are irregularly mingled, and it
 is a wise dispensation of Providence, that they
 should be so; for as the hardwood land, is that
 which best repays the farmers toil, so is the pine
 grove the mainstay of the lumberer, and each must
 remain dependent on the other, while yet at an in-
 convenient distance from railways or navigable
 waters. Thus it is that the lumber shanties afford
 a certain and profitable market for all the settler's
 surplus produce of Beef, Pork, Flour, Peas, Potatoes,
 Oats and Hay. Settlers are generally poor, and not
 able to make roads for themselves in the Bush. But
 in the vicinity of lumbering operations, they get the
 advantage of all the roads and bridges used in taking
 off the timber, and many live for years in the old
 lumber shanties. Were it not for these advantages,
 the pioneer settlers would be shut up in the bush
 and isolated from all markets; whereas the lumberer

provides a market almost at his own door for everything the settler can raise, and furnishes profitable employment in winter, for himself and family. In many cases the lumberer advances seed to the settler, and assists him in putting it in, by lending him cattle and implements.

The climate here being so different from that of the United Kingdom, the system of farming, and the rotation of crops, must necessarily be dissimilar.

Potatoes and wheat are the first crops generally raised upon new land, as it is too rich for almost any others.

Wheat is the crop that generally succeeds the Potato, and it is sown in the Potato soil as in new land. Oats follow the Wheat, but the Wheat stubble must be ploughed for its reception. All crops here, though put in later in the Spring, mature earlier than in England.

Generally speaking the snow is off, and the ground is fit for ploughing between the 20th April and 1st May.

Haying (mowing) generally commences about the 12th July. An acre and a quarter is the average quantity of meadow that a man will cut per diem. The expense of saving the hay is considerably less than in England. It may be judged of by the fact that light meadow has been known to have been cut and put into the barn stack *on the same day*. The more usual system however, is to shake it out soon after being cut, then to rake it into "wind-rows," make small stacks of it by the evening, and next evening put it into large stacks or the barn,

The reaping of the wheat that has been sown in

the fall (autumn) begins about 1st August. If it be not lodged it can be "cradled,"—which means being cut with an implement called a cradle, resembling a scythe, and by means of which a man will cut at least four times as much as with the reaping-hook.

Spring Wheat comes in about 10th August, and may also be "cradled" if not lodged.

Oats are usually fit for cutting by the 14th August, and are most frequently "cradled."

Peas ripen by the 5th August, and are cut with the scythe and reaping-hook.

Indian Corn is gathered in about the 8th September, and it takes about four men to the acre. Women and children are almost as useful at this work, as men.

Potatoes ripen according to the time at which they have been planted.

By the 10th of October the harvest is generally housed, and then underbrushing—which cannot well be done in winter in consequence of the deep snow—is commenced. Potash is now being made, and sleighs, &c., put in order for the winter's work.

All kinds of cereals, vegetables and fruit grow well, and by the man who is capable of doing his own farming, they can be produced at comparatively little cost, and to him they are sure to yield a profitable return for his labour. But, as in all new countries, labour is scarce, and consequently expensive, he who is incapable of taking the axe, the plough, the scythe and sickle, in his own hand, and using them effectively, cannot hope to realize much profit from pursuits exclusively agricultural.

In grain—wheat, rye, oats, barley, buckwheat and Indian corn, or maize, are each a sure crop.

Potatoes, turnips, beets, carrots, parsnips, beans and peas, squash, pumpkins, melons, tomatoes, &c., are raised in large quantities. Sixty bushels of Indian corn, is not an unusual crop per acre. Beet-roots, for sugar, broom-corn and tobacco have been successfully experimented with. All vegetables and fruit that are raised in New England and the Western States of America may be successfully grown in the Ottawa district.

A farm of one hundred, or even fifty acres, is quite large enough for any industrious and practical farmer. Emigrants wishing to come to this part of the country would do well to club together in joint stock companies of ten or twelve, and each company purchase a block of 1,000 acres in the best agricultural districts, and divide it among them by lot or otherwise. In this way each would possess a farm quite large enough, and with sufficient land under cultivation to enable him to begin business at once, and get good returns the first season.

In Europe much misconception exists with respect to the amount of capital necessary for a farm settler in Canada to be possessed of. Let it then be distinctly understood that the single man, of temperate habits, with a will to work, needs but a stout heart and a strong arm to realise for himself an independence in a very few years.

Wild Lands are usually sold subject to the obligations of actual residence, and the cultivation of a few acres annually; and the payments for them are usually made in four annual instalments.

In the newer Townships the taxes rarely exceed a very few pence in the pound upon the assessed value, but all who are on the assessment roll are compelled to do a few days statute labor annually upon the roads.

The wages of a good working man is usually £30 to £40 a year, with board and lodging, and that of servant girls from 10s. to £1 sterling a month also with board. A party consisting of upwards of 60 agricultural laborers brought out to Ottawa last year by the Rev. Mr. Fletcher, from Calne, Wiltshire, were all disposed of in twenty-four hours by Mr. Wills, the Immigrant Agent, at \$24, \$20 and \$14 per month, according to their capabilities. Shoemakers, tailors, blacksmiths and carpenters, are the tradesmen most useful in the newer parts of the country, and such will find ready and remunerative employment in the various towns, villages and settlements. Masons, bricklayers, glaziers, &c., &c., &c., will also have no difficulty in getting immediate and constant work at high wages in the large towns and in Ottawa. In fine, there is plenty to do for all who are able and willing to do it; but for the *indolent* or the *intemperate* there is no room, and such characters will certainly not better their circumstances by coming here. Mr. Wills last year received 4813 applications for laborers of different kinds.

So far from being a draw-back to the farmer, the winter is of the greatest benefit to him in many ways.

The clearing of the land. is most frequently done in winter, and threshing and milling are also exclusively winter employments. Besides purifying

the atmosphere, and enriching the earth, the frost and snow fill up mud-holes, almost impassable in Summer, and convert Lakes and Rivers into excellent roads, over which the farmer takes large sleigh loads of produce to the mill and to the market. In the preservation of meats the frost is also of very great advantage. It obviates the necessity of feeding fat cattle or poultry through the winter, and thus saves an incalculable amount of labor and expense. Cattle are permitted to roam at large through the woods in summer, and in the fall such as are intended for beef are in fine condition. When the cold weather sets in they are slaughtered, and the meat being allowed to freeze, and being then put in a cold place, it keeps perfectly fresh till spring. Poultry are preserved by the same simple process, and milk may also be kept through the winter in frozen cakes,—a lump being chopped off and thawed out as occasion may require. Were it not for the frost and snow, the climate would be less healthful, the soil less fruitful, the valuable products of the forest could never be made subservient to the use of man, and Canada would not be, what she now undoubtedly is, a prosperous, a progressive, and a happy country.

MINERAL RESOURCES.

The mineral wealth of the Northern shore of the Ottawa Valley is not surpassed, if indeed it be equalled by any other section of the country in variety and richness. It has not yet however received anything like the attention it deserves, and

may be said to be almost entirely undeveloped. To mention some of the principal minerals, we have iron, lead, plumbago, manganese, heavy spar, calc spar, gypsum or plaster of paris, marble pronounced by good judges as fully equal to that of Carrara and Vermont; and building stone, all of the latter in large quantities near the surface. Gold has also been found, but not as yet in quantities sufficient to pay the working.

IRON.

Magnetic Iron ore is found more or less all through the Laurentian chain of Mountains traversing the North side of the Ottawa river, but the only place where this mineral is as yet worked is in the Township of Hull, within a few miles of the capital, where a village called "Ironsides" has sprung into existence since the opening of the mine. There is no reason why, when properly conducted, the same success should not attend the manufacture of iron as has attended it in other countries where similar conditions exist. In Sweden and in Norway, as in Canada, the ores are generally magnetic, the fuel charcoal, the motive power water, the means of transport and communication imperfect; labor is certainly cheaper, but the ores are less rich (33 per cent being the average in Norway, while here it is estimated at 69 per cent.) The same conditions as to ore, fuel, &c., obtain in New York State, where the smelting of iron ores seems to be very successful, and if care be taken to employ the same skill, and the same apparatus and processes which are there applied, iron could be as successfully made in

Canada as in New York. The New York Journal of Commerce in calling attention to the vast number of iron deposits known to exist in Canada, says under the heading of an article on Canadian iron, that there is every probability of a heavy rivalry between the two countries in the manufacture of this metal, not only because of the remarkably excellent quality of the Canadian metal, but on account of the low prices of labour and material employed here in its production, and the writer exemplifies its quality from a test made by the superintendent of the West Point Foundry, who reported a square inch of Canadian iron resisting 20,000 lbs. more pressure than that from the most popular works in the U. S. The same iron he says has been manufactured into beautiful specimens of steel.

The Hull iron mine, belonging to Mr. Baldwin, is distant from the Gatineau River, about two miles, by a road constructed from the blast furnace to the ore bed. The facilities for working the mine are good, as are those for getting out the products to market. The mine is situated on elevated ground, and the ore is approached not from above, but from the face or below, which avoids the expense and labour of underground working. The products are conveyed to the wharf on the Gatineau in wagons or sledges; and from thence shipped to Cleveland by barge and boat, at a cost of something like \$2.75 per ton for freight from the Gatineau.

The ore shipped to Cleveland, has there been mixed with the inferior ores of Lake Superior and other places, and has yielded iron of an excellent

quality for the furnace. As a proof of this, we may state that the Toronto Car Wheel Company has purchased some of the iron made from Hull ore and used it in the construction of wheels and other castings, and Mr. GARTSHORE, the manager of the Company's works, has stated tha' it is a most excellent description of metal for their purposes. The ore has given so much satisfaction in Cleveland, from the ease with which it can be smelted and the quality of iron produced, that larger orders have been given at advanced prices. During this winter and next season, the proprietors propose to take out at least twenty thousand tons, for the whole of which they will find a ready market in Cleveland. Ten thousand tons were taken out last year.

Some months ago an analysis was made of a fair sample by Professor CHANDLER, of Boston which gave the following result:—

Magnetic oxyd of Iron.....	93.82
Alumina79
Lime.....	.45
Magnesia.....	.94
Sesqui oxyd Manganese.....	.12
Silica	3.75
Sulphur11
Phosphorous.....	.08
	<hr/>
	100.06
Equivalent to Metallic Iron.....	67.94
" to Sulphur.....	.11
" to Phosphorous.....	.03

The quantity of the ore may be said to be unlimited. The ground is strewn with large and small blocks of ore, slightly oxidized by exposure to the

atmosphere, and the geological strata, where the workings have laid it bare, are seen to be intersected with veins running in every direction. The direction of what appears to be the principal vein—which is about forty feet in width, judging from surface indications—is towards the south west; but as there are radiating veins of very considerable thickness, it is utterly impossible to fix the location of the parent vein, or to say what limit should be placed upon the abundance of the ore. But the merest tyro in mining matters could not fail to see that the ore is present on the surface and in the strata in immense quantities. In enlarging the working bed at the entrance to the mine, large veins have been “struck” to the right and the left, and dipping at every imaginable angle. From one of these, at a single blast, not less than twenty tons of magnificent ore was thrown out.

The disastrous fires of last year went over the ground in the neighborhood of the mine, doing great damage to forest and fields, but resulting in one piece of good at least, that is, disclosing the fact that the ore was of greater extent than had been supposed. Since these fires the ore has been traced a distance of about one mile and a half. Here the richness and quantity of the ore may be better estimated than in any other part. A small hill rises from slightly swampy ground to a height of about one hundred feet, having a base of about one hundred and thirty feet. The hill exposes a wall-like face, from which, from top to bottom, there may be seen protruding immense blocks of ore; and the whole bears the appearance of having been thrust through the crust of

the earth by some violent volcanic disturbance. Roughly estimated, the cubic contents of this hill, as far as the ore has been traced from the front backwards, are $100 \times 130 \times 150 = 1,950,000$ feet, or about 288,000 tons. This is what we may term surface ore, which is found in abundance along the whole of the course mentioned above, and it would not be extravagant to estimate the exposed or easily accessible mineral at 100,000,000 of tons. The wealth concealed below it is impossible to estimate; but there can be no doubt that the hidden treasures are of enormous extent and great richness. In the present working, the fact has been disclosed that the veins have an inclination downwards, that the deeper it is obtained the richer it is, and this will, in all probability, be the character of the veins throughout the whole course of the ore bearing strata. In this mine there is iron for a nation for ages to come, and it will be a source of great wealth to its owners as well as profit to the country. If worked only as now—for ore for shipment to a foreign country—it will employ labourers, our ships and canals, and put money into circulation; but if made still more useful by the conversion of its ore into iron, its influence for good upon the industries of the country, and the Ottawa district especially, would be ten-fold greater.

PLUMBAGO.

In the valley of the Ottawa, pumbago or graphite is found in the townships of Grenville, Lochaber, Ruckingham, Templeton, the Seigniorie of Petite Nation, and in the township of Burgess, south of the Ottawa River. It occurs in a disseminated form throughout the Laurentian limestone; but the sec-

tion of country where this mineral is being principally worked is in the townships of Buckingham, Lochaber, and Templeton. Of late the attention of explorers has been given for the most part to the ridges of land lying between the river Blanche in Templeton, and the River du Lièvre in Buckingham. It is only four or five years since the mines in the latter were opened under the present system of working, but there are already two crushing mills in full operation, and several others in the course of preparation. The facility of obtaining water power for the machinery, and the short distance the prepared article has to be conveyed to navigable water, greatly enhances the value of the deposits in these townships. The following description of the crushing mill working at Buckingham will partly explain the operation.

A powerful head of water by the construction of a dam being first of all obtained as the motive power, huge square blocks of iron each weighing several hundred weight, called stamp-heads, are allowed to fall alternately upon the crude ore previously broken into pieces, which they by repeated blows crush fine in water. The matter thus obtained is then conveyed into the buddles, which are circular vats or shallow tubs in which four cross bars, each furnished with a strong brush nearly but not quite touching the bottom, rotate, giving a circular motion to the whole of the contents, which are of the consistency of thin mud; by this motion the graphite and the minerals associated with it are separated from one another according to their specific

gravity, and deposited in rings around the centre of the buddle. The graphite being the lightest of the minerals gradually reaches the outer ring, while the heavier stony matter remains in the centre, where the heaviest particles concentrate. Gold to the value of \$4.38 per ton has been obtained, and it is not improbable that the greater the depth from which the ore is dug, the larger the yield of gold will prove. When proper steps have been taken to separate and collect this, the precious metal will go a great way towards paying the working expenses of the mill, and thus enhance materially the value of its products. The graphite being thus cleaned, is then dried on a furnace or kiln, and subjected to other processes, one of which is not made public, and the mineral is ultimately collected in fine scales or grains in a condition of great purity. It is then barrelled up and is ready for shipment. The price obtained for the material in England when manufactured is about \$130 per ton of 2,000 lbs. The price of course varies according to quality.

LEAD.

A rich deposit of lead associated with sulphate of barytes has been discovered and partly worked near Buckingham, and though the veins have only been uncovered for a short distance, sufficient idea of their richness has been gained to warrant extensive operations. The locality is very favourable for working, being on the summit of a steep bank surmounting a small creek which affords natural facilities for draining off the water from the workings. It has been ascertained that this lead is argentiferous.

OTHER MINERALS.

The iron pyrites of the Laurentian rocks has frequently been found to contain small portions of nickel, and cobalt, which metals might be profitably extracted from the residue left after its calcination in the manufacture of sulphuric acid. Cobalt ore is rare, and much sought after, its price being about \$3 per pound in England. An estimate of the expense of extracting cobalt from pyrites and the marginal profit resulting from it is shown as follows:—Expense of excavation, calcining, freight, &c., \$14 per ton. That amount as ascertained by analysis of pyrites taken from near Brockville yielded at the rate of 8 lbs. cobalt—worth \$24—leaving a clear profit of \$10, without taking into consideration the sulphuric acid obtainable during the process.

The time will come sooner or later when our increasing industry will warrant the establishment of large chemical works in the Dominion, and then the long neglected and despised pyrites will become available. Large quantities of sulphuric acid are now used in refining coal oil and petroleum.

Amongst the other economic minerals of the Ottawa valley, may be mentioned Steatite or Soapstone, used for lining furnaces, and when ground to a powder and mixed with oil, constituting the so-called fire proof paint. Kaolin, or porcelain clay, is met with in a few localities, and feldspar which enters largely into composition of porcelain, is found in considerable quantities in granitic veins among the Laurentian rocks, and in some places of sufficient

purity to be available for the use of potters. Specimens of sandstone from Vaudreuil on the Ottawa at the London Exhibition, attracted the attention of English glass manufacturers, who import a similar material from the United States, and who made enquiries as to the price at which the sandstone could be furnished in England, though without as yet leading to any direct results. The minerals of the Ottawa Valley are already yielding in most instances remunerative returns, and a source of wealth is opened which must swell the revenue of the country, and build up settlements in localities where otherwise sterility of soil forbade permanent improvements. A few years ago the population were dependant upon the lumbering firms, who took the produce of the farmer at what prices they chose, without consulting the producer, who was invariably in debt to them. Money was very little used, and the whole country bore an air of poverty and hardship. Go now through the same section, and a very different prospect is presented. Produce of all descriptions commands a high price in cash; teams which had to be sent far up the rivers for lumbering in the winter, are now in demand for drawing ore from the mine; the farmers are rapidly accumulating if not wealth, at least a sufficiency of means to which they have hitherto been strangers; the influx of strangers connected with the various workings is swelling out the population of the villages, and the additional revenue derived in the form of taxes from the increased value of the lands, add to the municipal wealth, while the lands surrounding the district are rapidly rising in

value, and now command a price, that a few years ago would have purchased the best lands in the West.

TIMBER TRADE AND RESOURCES.

The principal trees of the Canadian Forest, used in lumbering, are the white and red pine, the spruce, the hemlock, the balsam, the larch or tamarack, and the cedar. Where the soil is adapted for agricultural purposes, hardwood abounds, and in such sections of the country the pine tribe are only met with to any extent, in belts or hills, commonly known as "pine ridges." Of all trees the pine is the most valuable, the white pine occasionally reaching 200 feet in height, and making square timber 60 feet long by 20 inches.

As the principal timber producing districts are in the possession of Government, the first step of the manufacturer is to obtain what is called a timber berth or limit. These are sold by auction to the highest bidder, the price ranging generally from one dollar to a dollar and a half per square mile. The limit holder becomes a yearly tenant of the Government at a fixed rent, and in addition pays a slight duty per cubic foot of square timber, taken out, and on each standard log of 12 feet long and 21 inches in diameter. About twenty five per cent of the standing pine is available for squared timber; forty per cent for saw-logs; the remaining thirty-five per cent is undergrowth, useless, or da-

maged. Having secured the limit, a party of experienced scouts, generally Indians or half-breeds, are sent out to examine the land and seek out groves of valuable timber. These self-taught surveyors are very sharp, exploring the length and breadth of the unknown territory and reporting upon the value of its timber, the situation and capabilities of its streams for floating out timber, and the facilities for hauling and transportation.

Having with the aid of these scouts selected a desirable grove, a shanty is constructed of the simplest description, being generally built of rough logs with a raised hearth in the centre for a fireplace, and an opening in the roof for a chimney. A double row of berths all round serves for sleeping accommodation, while from a wooden crane over the perpetual fire, swings the huge kettle, which with the accompanying pot serves all the purposes of cooking.

The stores of the lumbermen are usually sent up to their forest shanty late in the autumn, and all preparations are made to commence the work of felling as soon as the sap is down. White pine is generally found on undulating ground, mixed with other timber, and has to be selected with considerable care,—none but lumbermen being able to detect sound from unsound trees. Red pine on the contrary grows in unmixed groves, and among thousands of trees there will not be found one diseased trunk. Around you stretches a vast sandy plain from which thousands of smooth straight trees spring to a height of forty or fifty feet without branch or

leaf, then spreading out into the magnificent evergreen foliage, which distinguishes what is commonly called the Norway pine. In connection with the lumbermen there usually works a cheaper class of men, who cut roads and haul the levelled trees to the stream or to the main road from the forest. The number of logs which the lumbermen cut in a single winter is almost incredible, and the business of conveying them to the nearest lake or river, gives employment to numbers of additional men and oxen. By hauling the logs over cliffs, and dragging them down ravines, the lumberers, before the thaw sets in, collect along the banks of the various tributaries, millions of cubic feet of timber; and when the ice-bound streams become free, their more arduous and dangerous labor commences, and great activity is displayed in getting ready for the start or drive usually about March or April. If the stream is not large enough for *cribs*, *i. e.* small rafts containing about twenty sticks of square timber fastened between two round logs called floats, it is drifted down separately, the lumbermen keeping up with it either along shore or in canoes, and keeping the stragglers well together with long poles. When the larger stream is reached cribs are formed, the round logs at the sides and heavy transverse pieces on the top keeping the enclosed square timber from injury, and the stream carries it down with its gang of men and provisions to the broad bosom of the Ottawa. This river from its upper waters to its mouth, is navigable for cribs and rafts of timber, though it is sometimes necessary at rapids or falls where no

slides are yet constructed, to break up the crib and remake it after the separate sticks have floated over the falls. A boom is usually thrown across the stream below the rapids to prevent the timber floating down too far. In places where the width of the river will admit it, many cribs are fastened together forming a raft, on board which with plenty of provisions, sail set, and a fair wind, the lumberman enjoys some rest after his previous toils. The life of lumbermen is full of adventure and peril, but they are a hardy vigorous race, and seem to enjoy the most robust health, and care little for the fatigues they undergo. During the summer the shanties and lakes become a perfect solitude, for the log chopper has become a log driver, and the toiling oxen are permitted to enjoy their summer rest on the farms of their masters. The trade in timber is yearly becoming more extensive and the following statistics will convey some idea of its importance. During the last year, the Valley of the Ottawa furnished 100,000,000 feet of sawn deals, and 285,000,000 feet of sawn boards; the St. Lawrence Valley furnishing 225,000,000 feet of sawn deals, and 150,000,000 feet of sawn boards. There were exported to Great Britain alone 21,500,000 cubic feet of square timber, and 180,000,000 feet of deals. To the United States were sent 1,092,000 cubic feet of square timber, and 125,000,000 feet of deals, planks and boards, a large stock being also shipped to other countries. To cut down and prepare the timber, 15,000 men are employed in the forests, and in the saw and planing mills where it is manufactured for exportation there are some 10,000 men employed besides.

The trade, which has already reached such large dimensions is annually increasing—the lumbermen are yearly advancing farther and farther up the Ottawa and its tributaries, in search of the timber which has grown for centuries to maturity on their banks; and every year many of these men settle on the lands which they have observed in their wanderings to be favorable for agricultural purposes. Thus the country of the Upper Ottawa is becoming rapidly opened up for settlement and civilization, the settler following the adventurous footsteps of the lumber merchant and his sturdy workmen.

A few figures will show what supplies of provisions a firm consumes in the course of a year in getting out 150,000 logs, the average amount manufactured at each of the firms at the Chaudiere in addition to their other branches of business, equivalent to about 30 million feet of lumber.

This service requires, during the winter season, in the woods, 450 men getting out the logs, 300 men piling and forwarding, and 300 teamsters, with the same number of teams. The average number of men employed by each establishment throughout the year is 637, receiving for pay, \$306,000. From this it will be seen that the lumber merchants of the Chaudiere alone employ about 4,000 men, paying annually \$1,836,000, which is all spent in and around the neighborhood to the benefit of the trade of the country generally.

The amount of supplies consumed in the winter season by the gang of men required to get out

150,000 logs, is as follows :—825 bbls. pork, 900 bbls. flour, 925 bush. beans. 37,000 do. oats, 300 tons hay, 3,750 gals. syrup, 7,500 lbs tea, 1,875 do. soap, 1,000 grindstones, 6,000 lbs. tobacco, 75 boxes axes, (one doz. each,) 60 cross-cut saws, 225 sleighs, 3,750 lbs. rope, 1,500 boom chains, (7 feet each,) 45 boats, 900 pairs blankets ; costing, at a low estimate, about \$54,367.50.

Of the agricultural produce used by the Hon. John Hamilton and Brother at Hawkesbury, there are expended 750 tons of hay. 25,000 bushels of oats, 5,000 bushels of turnips, 6,000 bushels of potatoes, 1,000 barrels of pork, 9,000 barrels of flour, and 2,000 barrels of oatmeal in the woods alone. So that 2,000 tons of agricultural produce is consumed by this firm alone.

These figures will tend to show that the lumber trade of the Ottawa consumes a large amount of the products of the country annually.

The large lumber factories in the Ottawa Valley, more especially those of the Chaudiere—as the falls of the river at Ottawa are called—give some idea of the magnitude of this, the staple trade of Canada, and its great importance to the country at large, on account of the numerous branches of industry connected with and dependant upon this trade. They are in full work usually about five months of the year, from 1st of May to the 1st October, and although much of the machinery employed is self acting and labour saving to an extraordinary degree, a large number of hands are employed. There are besides these larger establishments numerous smaller

mills scattered over the country, engaged generally in local trade. At the Chaudiere, a series of well devised hydraulic works have rendered available for manufacturing purposes a fall about twenty-nine feet, and as the lowest water ever known gave a discharge of 811,956 cubic feet, the power would be equal to 33,956 horse power; in high water the discharge is equal to 7,467,360 cubic feet per minute, with a mean fall of sixteen feet, equal to 168,745 horse power.

The following establishments may be mentioned to show to what an extent the manufacture of lumber has increased in a few years in this district.

Messrs. Bronsons & Weston established themselves in 1853, and were the first to take up land at the Chaudiere Falls, for the purpose of establishing a saw mill on a large scale. They are now proprietors of two large saw mills, a carding and grist-mill, lath and splitting mills. They get out annually about 175,000 logs, producing between 30 and 40 million feet of lumber.

Mr. A. H. Baldwin commenced business here in 1853 and owns two saw mills, a machine and blacksmith's shop, and a ship yard for building barges. He gets out annually about 125,000 logs, making 25,000,000 feet of lumber.

Mr. J. R. Booth first established business at the Chaudiere in the year 1858. He manufactures annually from 26 to 30 million feet of pine lumber, He gives employment, in the winter time, in the woods to about 850 men, and 300 teams, and in the

summer time at the mills to 400 men and 40 teams.

Messrs. Perley & Pattee established themselves in the year 1857, and have very extensive mills on the Chaudiere Falls. They get out annually about 150,000 logs, producing 30 to 40 million feet of pine lumber, independent of 500,000 feet of square timber. They employ on an average over 800 men through the year.

Mr. Levi Young first established his business at the Chaudiere in 1854, and owns one saw mill, getting out and sawing about 20,000,000 feet of pine timber in the year.

The mills belonging to Mr. Eddy, one of the largest manufacturers, consist of one large Pail Factory built solidly of stone; a match factory also of stone; four saw mills of great extent, built principally of wood, and numerous other buildings, offices, &c., necessary to such extensive operations, including a sash, door, and blind factory, and a general store. About 40 million feet of pine lumber are manufactured annually by him, of which there are always from 8 to 10 million feet on the piling grounds. He also manufactures annually 600,000 pails, 45,000 wash tubs, 72,000 zinc wash boards and 270,000 gross of matches, besides the productions of the sash, door and blind Factory. These mills give employment to from 1700 to 1800 persons, many of whom are girls employed in the manufacture of matches. In addition to these there are about four or five hundred men employed in the woods, where Mr. Eddy owns "limits"—a tract of land of about 500 square miles in extent.

Wright, Batson, & Currier's Steam Mill situated in the Village of Hull, has a capacity of about 30,000,000 feet; the quantity usually cut averaging from 16,000,000 to 25,000,000. The timber limits belonging to this firm are situated on the river Madawaska, and are six in number, containing in all 275 square miles.

The Steam mill of Law & Johnson manufactures about four million; and those of Messrs. H. Crandall & Co turn out about ten million feet annually.

The Hon. James Skead had a large mill destroyed by fire last fall, but it will be re-built this year on an enlarged scale. He cuts 500,000 feet square timber for the Quebec market, 8,000 pieces of flat timber for railroad sleepers, each 7×14 , and proposes, besides, to get out 35,000 saw logs this year. He employs about 500 men.

At the junction of the Rideau River with the Ottawa, are the mills of Messrs. MacLaren & Co, known as the New Edinburgh Mills, which manufacture about sixteen million feet of boards annually.

The Gatineau Mills, belonging to Messrs. Gilmour & Co., are situated at the village of Chelsea, about eight miles from the city of Ottawa and nine miles from the junction of the Gatineau with the Ottawa river. Messrs. Gilmour & Co. possess timber limits to the extent of 1,700 square miles, whence they obtain the requisite number of saw-logs to supply these extensive works, manufacturing about 35 millions of feet per season and 1,000 men receive employment from them during the winter, and 500 in summer, including lumbermen, farmers, surveyors, &c. This firm pays out from \$275,000 to \$280,000 in wages annually.

On the River Du Lievre, 20 miles below Ottawa, are the mills of Messrs. Le Moyne, Gibb & Co., which saw up about 200,000 logs a year. Opposite to them, on the same river, are the mills of Messrs. Jas. MacLaren & Co., owners of the New Edinburgh Mills, doing about the same extent of business.

Hamilton & Co., Hawkesbury Mills, is one of the largest of the great milling establishments of the Ottawa Valley. It is situated about 60 miles from Ottawa city, on the south shore of the river, near the head of the Grenville Rapids.

THE PROCESS OF MANUFACTURE OF TIMBER.

The following description is taken from the "Lumber Trade of the Ottawa Valley," by the permission of its author, Mr. Urquhart:—

The saw-logs when got out of the forest are taken to the nearest point on the Ottawa, and left to be drifted down by the stream, each firm having a private trade mark on each log by which they are recognized. At the Chaudiere they are caught by booms spread across the river above the falls, and guided through the different slides to the respective mills where they are to be sawn.

At the mills the logs are hauled up out of the water by a powerful wheel always in motion, and so placed on the cradle which guides them through the saws.

There are various kinds of saws, each performing its particular duty in the process. The slabber-gate, which contains from 18 to 20 saws, cuts the out

side of the log into boards of 1 in. thick, leaving the bulk in a slab of 14 inches in thickness, and of different width according to the size of the log, 37 in. being the largest. As the saw gets through the end of the log, these outside pieces are taken away and trimmed to the required size by the butter and edger.

The large slab is then turned over on the flat side and run through the stock-gang which contains from 30 to 40 saws placed about 1 inch apart and sawing the slab into 1 inch boards. These saws can be changed at will to saw 2 inch or 3 inch boards. It takes these saws about 8 minutes each to get through a log of the ordinary size. The yankee-gate is a combination of the slabber and stock gate, and contains about 32 saws. This gang saws both ways, the teeth of the slabber facing one way and those of the stock the other. By this means the log is sawn by the slabber as described above and the slab turned over and sent back through the stock gate, so that while the slabber gang is dividing one log, the stock is finishing off another. The single saw is used for sawing the logs into pieces of about 3 inches square the gate acting in the same way as the other gangs, but with only one saw which performs the whole work. These gangs are all worked on upright pivots, the machinery underneath forcing the gate up and down at a considerable rate on the same principle as the old saw-pit fashion, where one man works on top of the log and another underneath.

The butting and edging tables are for the purpose of taking off the rough sides and ends of the planks as they come from the larger gangs, and are fitted with counter saws for this purpose.

The planks are laid on the table, and a revolving chain with catches in it, carries the wood along past the circular saw which takes off the outside pieces leaving the plank the required width and length, and disposing of the waste and damaged wood, which is sold for firing.

As the planks pass over these tables the foreman marks each one according to its size, and they are then wheeled out on hand trucks to be taken to the piling grounds.

These piling grounds are of vast extent and are in many cases supplied with railways over which the lumber is drawn in horse trucks; but in some cases the lumber is slid through a hole into a large trough of running water which carries it to its destination.

Besides the regular lumber trade, other finer woods, for furniture, and for wheelwrights' and cabinet-makers' purposes are obtained. Hemlock bark is used largely for tanning purposes, and as it is now ascertained that it is far better to manufacture the bark into a merchantable article of value at the place of growth, by making an extract of it, than to send it in the rough, this branch of peculiarly Canadian industry is gradually extending.

GENERAL RESOURCES.

Lakes, Streams, and Springs of the purest water are to be found in all directions, and to the man who understands fishing, they will yield an abundance of the choicest fish. One man in the settlement of Lake Clear, has realized as much as £20 in

one season, by the sale of barrelled fish, after supplying his own family. On White Fish Lake, in the County of Ottawa, the Norwegian settlers have, for some years, been carrying on quite a large trade in barrelling fish; and as the Government guards the waters of the district during the breeding season, there is no fear of this branch of commerce being destroyed, but rather it must increase. Deer, Partridges, and Ducks are also numerous, and well repay the labor of looking after and shooting. Cash can always be obtained for them in Ottawa, or in any of the many villages and towns of the district. The peltries of Beaver, Otter, Mink, Martin, Musk-Rat, and Fisher, are very valuable, and many settlers make money by trapping these animals. Wolves and Bears also inhabit "the Bush;" but, however the idea of such neighbors may scare Europeans, they are not dangerous to man; even when unarmed and alone they fly from him whenever he happens to cross their path, and they seldom annoy the settler, unless in harvest, when Bruin occasionally helps himself to a feed of growing grain, or to a pumpkin, but for which he generally pays the penalty of his life, and his skin amply compensates for the few evening meals he may have stolen.

Potash is very remunerative to the farmer, and requires but little skill in the manufacture. The ashes of $2\frac{1}{2}$ acres of ordinary hardwood land should be sufficient to make a barrel of potash worth about \$30.

Cordwood, which on a new farm is looked on as an incumbrance, commands a ready sale especially

in Ottawa, and is yearly rising in value. From \$3 to \$5 is the price it there commands, and in the villages it is always worth at least \$2.00 to \$3.00.

Peat is abundant in the Ottawa country, and will some day be largely used for fuel, and probably for smelting iron ore, as the forests become cleared.

Maple sugar is peculiarly a Canadian article, and has for many years been almost the only sugar used by the farmers inhabiting the back settlements. It is manufactured from the sap of the maple tree in the early spring, which is boiled like the juice of the sugar cane, and the sugar making time is quite a merry making. The average yield of each tree is from two to three pounds; 2,000 lbs will sometimes be made by one farmer in a spring; worth from 10 to 13 cents a pound.

Wild honey is to be had in large quantities in the forest, which sells readily; and the keeping of bees, to which but little attention has been given, would be a profitable addition to the farm or garden.

Dairy produce always commands a ready sale, and the establishment of cheese factories in this district is commencing. Butter of a good quality always sells well, and is bought up by many storekeepers for ultimate shipment to England. One firm in Perth, the county town of Lanark, sold to a firm in Montreal, last fall, 2,800 packages of butter in one lot for \$50,000. This quantity held by one firm was greater than that of any other retail dealer in the Dominion, and is an indication of the extent of the butter trade of the county of Lanark alone. Other large lots were also disposed of in Perth.

Indigenous fruit of almost every variety is abundant in the forests and the clearings. Of the nuts, hickory (a kind of walnut), butter-nut, hazel, and beech are the principal; almost all the hills abound in blueberries; strawberries literally cover the pasture fields during early summer, and raspberries and blackberries abound in sandy soil. A sweet red plum is also abundant in many places, which is largely used for preserving purposes, meeting with a ready sale everywhere. Cranberries, of which there are two kinds, are very abundant, commanding a high price in the markets; and elderberries abound in all the lowlands.

The manufacturing interests of this District have been greatly stimulated during the past few years, and these not only give employment to artisans and laborers, but, at the same time, create more active markets for the products of the farmer, and the settler will find himself, wherever he may locate, not very far distant from a mill at which he may have his logs made into boards and his grain made into flour.

Establishments for the manufacture of cloth, woollen and cotton, boots and shoes, leather, furniture, carriages, staves, doors, sashes, paper, soap, agricultural implements, and stoves, are in successful operation, and yearly multiplying, all through the Ottawa country. In the city of Ottawa itself there are four flour and grist mills, four foundries, one carding mill, one woollen mill (in New Edinburgh) which manufactures all descriptions of tweeds, blankets, &c., two marble works, three tanneries,

one of which, (R. Woodland's) turns out 6,000 sides of finished leather annually, and manufactories and workshops of almost every other description.

With a system of enregistration so complete as ours, capitalists who desire to lend their money on the security of real estate, run no risks whatever in doing so.

The average interest paid upon first mortgages, or preferential loans of this nature, is between 6 and 8 per cent. per annum, and there is very little available capital but what is bespoken in advance by some one who has property to mortgage.

Our banks offer to capitalists great inducements to invest their surplus means. They have an average capital of \$2,000,000, each; which, divided into shares ranging from \$40 up to \$200, is to-day, in all of the banks, paid up. The operations of the banks resting upon so solid a basis, invariably enable their directors to declare to the shareholders a dividend of eight per cent. per annum, while, at the same time they afford to trade an impetus, and the means of expansion.

Our telegraph, insurance, navigation, gas, and manufacturing companies and building societies are based, as the banks, upon paid up capital stock, and like them also, pay eight per cent. per annum, and sometimes more, to their shareholders.

Bank dividends, and those declared by joint stock companies, are paid semi-annually.

The vicissitudes of trade, and the fluctuations of the market, leave constantly available to the purchaser bank and stock companies' shares, at comparatively low premiums.

In addition to the ordinary savings banks of the country, there are also Post Office and Government Savings Banks, for full details of which see advertisement at the end of this work.

The inhabitants of the Ottawa country are of various origins, but are chiefly English, Irish, Scotch, and French Canadians. Amongst them the leading Christian denominations are well represented, and each particular creed can boast of worthy ministers and faithful followers. Generally speaking, religious or political acerbity is almost unknown here; the people of all creeds and shades of politics are so mixed up in business and are so dependant upon each other, that they cannot afford to quarrel about their particular forms of worship, or their political predilections, even though their better judgments did not interpose to prevent them.

Hospitality is a virtue freely practised by all, from the highest to the lowest, and the stranger, whoever or whatever he may be, is always sure of receiving kindness and encouragement; for, in all probability, the position in which the recipient may now be, is identical with that in which the donor himself was some few years previously.

The laws of the country are efficiently administered, the rights of property are respected, and every species of crime is comparatively trifling.

Anxious to promote the settlement of the yet uncleared districts, the Ontario Government has thrown open, upon the most liberal terms, a large tract of land, where persons may go and select for themselves the site of a future home. Every head of a

family can obtain, gratis, two hundred acres of land, and any person arrived at the age of 18 may obtain one hundred acres in the Free Grant districts. This offer is made by the Government to all persons without distinction of sex, so that a large family, having several children in it at or past 18 years of age, may take up a large tract, and become, in a few years, when the land is cleared and improved, joint possessors of a valuable and beautiful estate. The settlement duties are : to have 15 acres on each grant of 100 acres cleared and under crop, of which at least two acres are to be cleared and cultivated annually for five years ; to build a habitable house, at least 16×20 feet in size and to reside on the land at least six months in each year.

The Free Grant Lands are situated on the *Mississippi Road*, the route to which is from Ottawa to Perth by rail, and thence by stage to Gemley ; on the *Ottawa and Opeongo Road*, the route to which is from Ottawa to Arnprior by rail, and thence to Egarville by stage ; on the *Pembroke and Mattawan Road* the route to which is to Arnprior by rail, and thence to Pembroke by stage—at these three places, Gemley, Eganville, and Pembroke, a Government Land Agent resides, from whom all particulars can be obtained.

GENERAL INFORMATION FOR EMIGRANTS.

One of the greatest trials the emigrant is subject to in coming in a new country is that of finding employment. In order to meet this difficulty, and

to assist the emigrant as much as possible on his arrival, the Government of Ontario, obtains each season, from the heads of the various municipalities in the Province, of which there are about four hundred, a statement of the labour wants of their districts. These returns are classified, and as emigrants arrive, they are directed by the Agent to the places where their labour is required. In this way time and money are saved to the new comer; and he finds himself on his arrival with employment waiting for his acceptance. All the Government agents in the Province are furnished with these labour registers and are always ready to afford every information to the newly arrived emigrant. There is a Government Agent in the city of Ottawa, Mr. W. J. Wills, whose charge is to look after the interests of the emigrant on his arrival in the Ottawa District, and from whom all information can be obtained, and who is in constant communication with the Emigration Branch of the Dominion Government. The following extract of a letter from him to Lord Fitzmaurice, on the subject of employment for immigrants, is a volume in itself:

"The Ottawa country is one of the few localities on this Continent, where employment can be obtained all the year round at the same high rate of wages. Winter, which is the dull season in other agricultural districts, is here the most busy, and to the workingman the most paying. Owing to our immense lumbering establishments, the Ottawa Country affords, every winter, employment for 20,000 men, without taking into account the farmers resident in its immediate neighbourhood."

OTTAWA VALLEY IMMIGRATION SOCIETY.

having for its object the facilitating of immigration of farming hands, mechanics and female servants to the Valley of the Ottawa.

Extract of a letter to Farmers and other employers of the Ottawa Valley: —

GENTLEMEN,

The Ottawa Country being off what is called the main line of travel, emigrants arriving have been chiefly drawn westward, where there has also been a scarcity of labor. •

It is now certain there will be a still greater demand for laborers next season, and unless additional inducements to those heretofore offered by the Government to emigrants be adopted, the want of labor will become a serious drawback to business of all kinds. The Ottawa Valley Immigration Society has been formed, for the purpose of supplying this want, and with that view they propose to employ a special agent to proceed to Great Britain, and who, it is presumed, will be aided by the Government Agents located there. This agent will be placed in a position to render material aid to such suitable emigrants as are required by farmers and other employers in this locality, *by advancing part, or perhaps in some cases, all their passage money*; they entering into contract to serve one year at fixed wages, repaying the monies advanced by the different parties requiring their service, by monthly instalments or otherwise.

I am Gentlemen,

respectfully yours, •

J. M. CURRIER, M. P.

on behalf of the Committee of Management.

J. M. Currier Esq, M, P. is President, Hon. James Skeel, Vice President, W. J. Wilks Esq., Local Agent of the Society.

GOVERNMENT IMMIGRATION AGENTS

6

OF THE DOMINION IN CANADA.

EDWIN CLAY, Esq., M. D., Government Immigration Agent,	HALIFAX.
R. SHIVES, Esq.,	St. JOHN. N.B.
J. G. G. LAYTON, Esq.,	MIRAMICHI, N.B.
L. STAFFORD, Esq.,	QUEBEC.
JNO. J. DALEY, Esq.,	MONTREAL.
W. J. WILLS, Esq.,	OTTAWA.
R. MACPHERSON, Esq.,	KINGSTON.
JNO. A. DONALDSON, Esq.,	TORONTO.
R. H. RAE, Esq.,	HAMILTON.
J. A. N. PROVENCER, Esq.,	NORTH WEST TERRITORY.
GILBERT McMICKEN, Esq., Resident Immigrant Agent	FORT GARRY.

POST OFFICE SAVINGS' BANKS, CANADA

1.—Post Office Savings' Banks, at 233 of the principal cities and towns of Canada, are open daily for the receipt and repayment of deposits, during the ordinary hours of Post Office business.

2.—The direct security of the Dominion is given by the Statute for all deposits made.

3.—Any person may have a deposit account, and may deposit yearly any number of dollars, from \$1 up to \$300 or more, with the permission of the Postmaster General.

4.—Deposits may be made by married women, and deposits so made, or made by women who shall afterwards marry, shall be repaid to any such woman.

5.—As respects children under ten years of age, money may be deposited.

Firstly—By a parent or friend as Trustee for the child, in which case the deposits can be withdrawn by the Trustee until the child shall attain the age of ten years, after which time repayment will be made only on the joint receipts of both Trustee and child.

Secondly—In the child's own name, and if so deposited, repayment will not be made until the child shall attain the age of ten years.

6.—A depositor in any of the Savings Bank Post Offices may continue his deposits at any other of such Offices without notice or change of Pass-Book, and can withdraw money at that Savings Bank Office, which is most convenient to him. For instance, if he makes his first deposit at the Savings Bank at Ottawa, he may make further deposits at, or withdraw his money through, the Post Office Bank at Collingwood or Quebec, Sarnia, Brockville, or any place which may be convenient to him, whether he continue to reside at Ottawa or remove to some other place.

7.—Each depositor is supplied with a Pass-Book, which is to be produced to the Postmaster every time the depositor pays in or withdraws money, and the sums paid in or withdrawn are entered

therein by the Postmaster receiving or paying the same.

8.—Each depositor's account is kept in the Postmaster General's Office, in Ottawa, and in addition to the Postmaster's receipt in the Pass-Book, a DIRECT ACKNOWLEDGEMENT FROM THE POSTMASTER GENERAL FOR EACH SUM PAID IN is sent to the depositor. If this acknowledgement does not reach the depositor within ten days from the date of his deposit, he should apply immediately to the Postmaster General, by letter, being careful to give his address, and if necessary renew his application until he receives a satisfactory reply.

9.—When a depositor wishes to withdraw money, he can do so by applying to the Postmaster General, who will send him, by return mail a cheque for the amount, payable at whatever Savings Bank Post office the depositor may have named in his application.

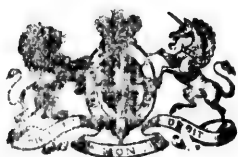
10.—Interest at the rate of 4 per cent. per annum, is allowed on deposits in the ordinary Pass-Book deposit account, and the interest is added to the principal on the 30th June in each year.

11.—Postmasters are forbidden by law to disclose the name of any depositor, or the amount of any sum deposited or withdrawn.

12.—No charge is made to depositors on paying in or drawing out money, nor for Pass-Books, nor for postage on communications with the Postmaster General in relation to their deposits.

13.—The Postmaster General is always ready to receive and attend to all applications, complaints, or other communications addressed to him by depositors or others, relative to Post Office Savings Bank business.

14.—A full statement of the Regulations of the Post Office Savings Bank may be seen at any of the Post Offices appointed for that purpose.



SAVINGS BANK FIVE PER CENT STOCKS.

The Government has established a special issue of 5 per cent Dominion Stocks into which Savings Bank deposits may be converted in sums of \$100 so that the whole amount shall not exceed \$1000. Such stocks are redeemable on three months notice. The dividends are payable half yearly by Receiver General's cheques on the Assistant Receiver General with whom the stock is inscribed, and all such cheques are paid at par at the agencies of any of the chartered Banks.

JOHN LANGTON.
Auditor

Ottawa, 17 Feb., 1872



IMPORTATION OF ANIMALS FOR IMPROVEMENT OF STOCK.

CUSTOMS DEPARTMENT,

OTTAWA, Feb. 17th, 1872.

NOTICE is hereby given that His Excellency the Governor General, by an Order in Council, bearing date the 26th of September 1870, has been pleased to approve of the following Regulations governing the Importation of Animals for the Improvement of stock, under Sec. 4, of 33 Victoria, Cap. 9.

REGULATIONS.

1. In all cases a certificate of purity of blood given by the breeder of the animal, and accompanied by a certificate of identification, signed and sworn to by the Importer, should be furnished to the Collector at the Port of Entry.
2. In addition to the foregoing certificate, there shall be required in special cases, the further evidence hereinafter mentioned, viz.:

BLOOD HORSES.

3. A proper pedigree referring to the English or American Stud Book, to be given by the breeder in his certificate.

HORSES OF OTHER BREEDS.

4. Such horses having no Stud book, an authenticated certificate of purity of blood and identification will be sufficient.

SHORT HORNED CATTLE.

5. The breeder's certificate should embody a correct pedigree, referring to the English or American Short Horn Book.

HEREFORD CATTLE.

6. The Pedigree should refer to the English Hereford Herd Book.

DEVON CATTLE.

7. The pedigree should refer to the English or American Devon Herd Book.

AYRSHIRE CATTLE,
ANGUS CATTLE,
GALLOWAY CATTLE, or
ALDERNEY CATTLE.

A certificate of purity of blood and identification will be sufficient, as first hereinabove prescribed.

8. And any other breed or description of cattle which is not specifically named in the foregoing, shall be held to be included in the general description embodied in the Regulation 1.

SHEEP, PIGS, AND POULTRY.

9. In these cases a similar certificate and identification will be required, as in the next preceeding case.

R. S. M. BOUCHETTE.

Commissioner of Customs.

Department of Public Works,

WEST END OF SECOND FLOOR,

WESTERN BLOCK.

RIDEAU CANAL,

JAMES. D. SLATER,

Superintendent.

OFFICE :—Wellington St., 126.

OTTAWA RIVER WORKS,

HORACE MERRILL,

Superintendent.

OFFICE :—Middle St.

CARILLON & GRENVILLE CANALS,

WM. B. FORBES,

Superintendent,

Carillon.

ST. ANN'S LOCK,

JOHN BARRETT,

Lock Master and Collector,

Ste. Anne.



DEPARTMENT OF MARINE AND FISHERIES,

FISHERIES BRANCH,

OTTAWA, 10th December 1871.

PUBLIC NOTICE.

The undersigned is directed by the Minister of Marine and Fisheries to call the attention of fishermen and the public generally, to the following provisions of the FISHERY LAWS and REGULATIONS affecting the INLAND LAKES RIVERS and STREAMS in the vicinity of this City:—

1. Fishing by means of nets or other apparatus, except under licences or leases authorized by the Minister of Marine and Fisheries, is prohibited.

2. The following are the seasons during which it is unlawful to catch the several kinds of fish named:—

<i>Salmon</i>	From 1st September to 1st May.
<i>Speckled (or Brook) Trout</i>	" 1st October to 1st January, in the Province of Quebec.
Do.	" 1st October to 1st of May, in the Province of Ontario.
<i>Bass, Pickerel and Maskinonge</i>	" 1st May to 24th May, in the Provinces of Quebec and Ontario.

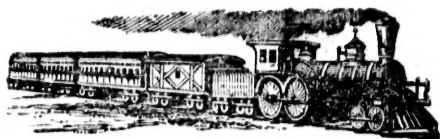
3. The undermentioned Lakes in the County of Ottawa are set apart for the natural propagation of fish from the 1st October in each year to the 1st May in each following year, viz., *Dam Lake, Indian Lake, Long Lake, Forked Lake, Over-the-hill Lake, Mud Lake, and Little Mud Lake*; and fishing of all kinds is (during such period) prohibited therein, and at all other times is confined to angling with hook and line, *nets and all other apparatus being strictly forbidden*.

Application for licenses to fish should be addressed to the HON. MINISTER of MARINE and FISHERIES.

Ottawa.

W. F. WHITCHER,
Commissioner of Fisheries.

1872.



Through Broad Gauge Route

BETWEEN THE

Capital of the Dominion

AND

ALL POINTS EAST AND WEST.

BROCKVILLE & OTTAWA

AND

**CANADA CENTRAL
RAILWAYS.**

The Cheapest and best Route between Ottawa,
and all Points East and West.

Close Connections made with the Grand Trunk
Railway, and THROUGH TICKETS issued to all
Important Points on that Route.

GRAIN and other FREIGHT sent THROUGH
between OTTAWA and ALL POINTS on the
GRAND TRUNK RAILWAY *without Transshipment.*

H. ABBOTT,
Managing Director.

DEPARTMENT OF CROWN LANDS,

TORONTO 26TH, FEBY. 1872.

NOTICE is hereby given, that the following Orders and Regulations have been made by His Excellency the Lieutenant-Governor in Council, under the "Free Grants and Homestead Act of 1868," and the "Public Lands Act of 1860," by Order in Council bearing date the 27th day of May 1869.

ORDERS AND REGULATIONS

Made under "The Free Grants and Homestead Act of 1868," and "The Public Lands Act of 1860," by Order of His Excellency the Lieutenant-Governor in Council, dated 27th May 1869.

1. The quantity of land to be located to any person as a Free Grant, under "The Free Grants and Homestead Act of 1868," subsequently to the 23rd day of January, 1869, shall be 100 acres; but in case it shall be made to appear to the satisfaction of the Commissioner of Crown Lands, that any person located, or to be located as aforesaid, has not by reason of rock, lakes or swamp, 100 acres that can be made available for farming purposes, the quantity located to such person may be increased in the discretion of the Commissioner of Crown Lands, to any number of acres, not exceeding in the whole 200 acres, so as to make 100 acres of such farming land; and the male head of a family located, or to be located, under said Act, since the said 23rd day of January, 1869, having children under 18 years of age residing with him, may be located for in all 200 acres.

2. Any locatee under said last mentioned Act, being the male head of a family as aforesaid, shall be allowed to purchase an additional 100 acres at 50 cents per acre cash, at the time of such locations subject to the same reservations and conditions, and the performance of the same settlement duties as are provided in respect of Free Grant locations by the 9th and 10th Sections of the said Act, except that actual residence and building on the land purchased will not be required.

Squatters upon land situate within any Township, or part of a Township, appropriated by Order in Council for Free Grants, and who had settled or improved upon such lands before the passing of the said Free Grants Act, shall be allowed to purchase said lands (not exceeding in quantity 200 acres to any one person), at 50 cents an acre cash, such sale to be subject to the same conditions and reservations as are provided by the 9th and 10th sections of said Act in respect of Free Grant locations.

4. The right is reserved to the Crown to construct on any land located under said Act, or sold as hereinbefore provided, any colonization road, or any road in lieu of, or partly deviating from any Government allowance for road; also the right to take from such land any wood, gravel or other materials, required for the construction or improvement of any such road, without making any compensation for the land or materials so taken, or for any injury occasioned by the construction of such road; and such rights may be exercised by the Commissioner of Crown Lands, or any one authorised by him for that purpose.

5. Holders of Timber Licenses, their servants, and agents, are to have the right to haul their timber or logs over the uncleared portion of any land located as a Free Grant, or purchased as before provided, and to make such roads thereon as may be necessary for that purpose, doing no unnecessary damage, and to use all slides, portages, roads, or other works previously constructed or existing on any land so located or sold, and the right of access to, and free use of all streams and lakes theretofore used, or that may be necessary for the passage of timber or logs; and all land necessary for such works is reserved.

6. All Pine Trees growing or being upon any land hereafter located as a Free Grant, under the said Act, or sold under the preceeding regulations, shall be subject to any timber license in force at the time of such location or sale, or granted within five years subsequently thereto, and may at any time before the issue of the patent for such land, be cut and removed under the authority of any such timber license, while lawfully in force.

R. W. SCOTT,

Commissioner of Crown Lands.

DEPARTMENT OF CROWN LANDS,

TORONTO, 26th FEB., 1872.

NOTICE is hereby given, that the following Order and Regulation have been made by His Excellency the Lieutenant-Governor in Council, under "The Public Lands Act of 1860," by Order in Council, bearing date the 27th day of May, 1869.

ORDER AND REGULATION

Made under "The Public Lands Act of 1860," by Order of His Excellency the Lieutenant-Governor in Council, dated 27th May, 1869:

All Pine Trees growing or being upon any Public Land hereafter to be sold, and which at the time of such sale, or previously, was included in any Timber License, shall be considered as reserved from such sale; and such land shall be subject to any Timber License, covering or including such land, in force at the time of such sale, or granted within three years from the date of such sale; and such trees may be cut and removed from such land, under the authority of any such Timber License while lawfully in force; but the purchaser at such sale, or those claiming under him or her, may cut and use such trees as may be necessary for the purpose of building, fencing and fuel on the land so purchased, and may also cut and dispose of all trees required to be removed in actually clearing said land for cultivation, but no pine trees, except for the necessary building, fencing and fuel as aforesaid, shall be cut beyond the limit of such actual clearing before the issuing of the Patent for such land, and all pine trees so cut and disposed of (except for the necessary building, fencing and fuel as aforesaid), shall be subject to the payment of the same dues as are at the time payable by the holders of licenses to cut timber or saw logs.

All trees remaining on the land at the time the Patent issues, shall pass to the patentee.

Provided, however, that this order shall not apply to any land to be sold as mining land, under "The General Mining Act of 1869," nor to land to be sold to any Free Grant locatee, under the regulations or Order in Council bearing date this day.

R. W. SCOTT,

Commissioner of Crown Lands.

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1872.

**St. LAWRENCE & OTTAWA
RAILWAY.
THE OLD, RELIABLE LINE.**

35 Miles Shorter from all Points East,

—AND—

**9 Miles Shorter from Brockville and all
Points West to**

OTTAWA.

4 TRAINS EACH WAY DAILY.

**Comfortable SOFA CARS by Night,
and PALACE CARS by day.**

20 Minutes allowed at Prescott Junction for MEALS.

CONNECTION with all GRAND TRUNK TRAINS, CERTAIN.

—ALSO—

**With those of the VERMONT CENTRAL, and
the ROME, WATERTOWN, and OGDENSBURG
Railways for BOSTON, NEW YORK, and all Points
South.**

During Navigation the Splendid Steamers of the

ROYAL MAIL LINE

Call at this Company's Wharf, at Prescott, daily.

ASK FOR TICKETS VIA PRESCOTT JUNCTION.

**To be had at the Principal Agencies and Stations of the Grand
Trunk Railway. BAGGAGE CHECKED THROUGH.**

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**Shippers can have Freight sent Through to Ottawa by this
Line WITHOUT TRANSHIPMENT, in CHANGE GUAGE CARS;
and as the CHAUDIERE EXTENSION is now open for Freight
Business, Merchants have the option of sending their Freight to
either the East or West End Station in Ottawa.**

**THOS. REYNOLDS,
Managing Director, Ottawa.**

**R. LUTTRELL,
Superintendent, Prescott.**